

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Evans et al. Examiner: Pillai, Namitha
Serial No.: 09/827,957 Group Art Unit: 2673
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Title: FOCUS STATE THEMEING

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By:

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APPELLANTS' BRIEF ON APPEAL

Mail Stop: Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Brief is presented in support of the Appeal filed October 1, 2004, from the final rejection of Claims 1-20 of the above-identified application, as set forth in the Office Action mailed April 1, 2004.

A check for \$500 to cover the required fee for filing this Brief is enclosed.

Applicant reserves the right to request an oral hearing by filing a separate request for an oral hearing with the appropriate fee within two months of the date of the Examiner's Answer in response to this Brief.

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This brief contains these items under the following headings, and in the order set forth below (37 C.F.R. §41.37(c)):

- I. REAL PARTY IN INTEREST
- II. RELATED APPEALS AND INTERFERENCES
- III. STATUS OF CLAIMS
- IV. STATUS OF AMENDMENTS
- V. SUMMARY OF CLAIMED SUBJECT MATTER
- VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL
- VII. ARGUMENT
- VIII. SUMMARY
- IX. CLAIMS APPENDIX
- X. EVIDENCE APPENDIX (None)
- XI. RELATED PROCEEDINGS APPENDIX (None)

I. REAL PARTY IN INTEREST

The real party in interest in this appeal is Microsoft Corporation.

II. RELATED APPEALS AND INTERFERENCES

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board's decision in this appeal:

- ☒ There are no such appeals or interferences.
- ☐ These are as follows:

III. STATUS OF CLAIMS

The status of the claims in this application are:

- A. TOTAL NUMBER OF CLAIMS IN APPLICATION: 20
- B. STATUS OF ALL THE CLAIMS:
 - 1. Claims cancelled: None
 - 2. Claims withdrawn from consideration but not cancelled: None
 - 3. Claims pending: 1-20
 - 4. Claims allowed: None
 - 5. Claims rejected: 1-20
- C. CLAIMS ON APPEAL: Claims 1-20

IV. STATUS OF AMENDMENTS

A first office action was mailed on October 27, 2003 rejecting claims 1-20. A response with amendments to rectify claim informalities was filed on January 27, 2004. A final Office Action dated April 1, 2004 maintained the rejections to claims 1-20. Applicant filed a response to the final Office Action on May 27, 2004, and subsequently filed the aforementioned Notice of Appeal on October 1, 2004. An Advisory Action responsive to the response to the final Office Action was mailed on December 22, 2004 and maintained the final rejections to claims 1-20.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The present invention is generally directed to a focus state indicator for control elements in a graphical user interface. See, e.g., FIG. 1 and page 1, lines 10-11. A concise explanation of each independent claim is provided below:

A. Independent Claim 1

Independent claim 1 generally relates to a method for displaying a focus state of a user interface element in a graphical user interface of a computing system. See, e.g., page 24, line 25 to page 25, line 20 and FIGS. 1 and 8. The method involves testing whether a control state of the user interface is disabled or active. See, e.g., page 25, line 12 and FIG. 8. If the control state is active, it is determined whether the user interface element is in a focus state. See, e.g., page 25, lines 12-24 and FIG. 1. If the user interface element is in the active state and in the focus state, a merged state is built indicating that the user interface element is in the active state and the focus state. See, e.g., page 7, lines 7-12, page 24, line 25 to page 25, line 7 and FIG. 1. Based on the merged state, a display of the user interface element in the active state with a focus state indicator is rendered. See, e.g., page 7, lines 13-20 and FIG. 1.

B. Independent Claim 7

Independent claim 7 generally relates to a computer program product readable by a computing system and encoding a computer program of instructions for executing a computer process for displaying a themed focus state of a control element in a graphical user interface of a computing system. See, e.g., page 6, lines 9-10 and FIGS. 1, 4 and 8. The method involves receiving a control state for the control element. See, e.g., page 6, lines 21-30 and FIG. 1. The method further involves detecting if the control element is in a focus state. See, e.g., page 25, lines 12-24 and FIG. 1. If the control element is in the focus state, a combined state indicating the control state and focus state of the control element is built. See, e.g., page 7, lines 7-12, page 24, line 25 to page 25, line 7 and FIG. 1. Based on the combined state, the control element is rendered so that the control element is displayed with a themed focus state. See, e.g., page 7, lines 13-20 and FIG. 1.

C. Independent Claim 11

Independent claim 11 generally relates to a method for changing visual styles of a focus state indicator in a control element in a graphical operating system running on a computing system. The method involves receiving a control state for the control element. See, e.g., page 6, lines 21-30, and FIG. 1. The method further involves detecting if the control element is in a focus state. See, e.g., page 25, lines 12-24 and FIG. 1. If the control element is not in the focus state, the control element is drawn using an operative state theme. See, e.g., page 7, lines 2-6 and FIG. 1. A combined state is created for the control element when the control element is in the focus state. See, e.g., page 7, lines 7-12, page 24, line 25 to page 25, line 7 and FIG. 1. The control element is drawn in the combined state, using the operative state theme and a focus state theme. See, e.g., page 7, lines 13-20 and FIG. 1.

D. Independent Claim 17

Independent claim 17 generally relates to a system for themeing a focus state indicator separate from an operative theme for a control element in a graphical operating system. See, e.g., FIG. 1. The system includes an operative state module which determines the operative state of the control element. See, e.g., page 6, lines 26-30, page 23, line 29 to page 24, line 24, FIG. 1 (Module 10), and FIG. 7. The system further includes a focus state detector module, which detects if the control element is in the focus state, and if so, builds a combined state indicating the control state and focus state of the control element. See, e.g., page 7, lines 1-2, page 25, lines 12-24 and FIG. 1. Finally, a build combined state module merges the operative state and the focus state into a combined state, in response to the focus state indicating the focus condition. See, e.g., page 7, lines 7-12, page 24, line 25 to page 25, line 7 and FIG. 1.

E. Independent Claim 20

Independent claim 20 generally relates to a user interface with selectable focus indicators for control elements in a graphical user interface for a computing system. The user interface receives an operative state theme for rendering a display of an operative state for a control element. See, e.g., page 7, lines 13-14, and FIGS. 1 and 8. A focus state theme is likewise received for rendering the focus state of the control element. See, e.g., page 6, line 14 and FIG. 8. The control element is displayed in a combined operative-focus state, the display of the control element in the combined state being based on the operative state theme and the focus state theme whereby control elements

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in the user interface have selectable focus indicators. See, e.g., page 7, lines 7-12, page 24, line 25 to page 25, line 7, page 7, lines 13-20 and FIGS. 1 and 8.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-20 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,039,047, hereinafter referred to as "Rock et al."

VII. ARGUMENT

A. INTRODUCTION

In order for a reference to anticipate a claim under any sub-section of 35 U.S.C. §102, the reference must disclose each and every element as set forth in the claim. Manual of Patent Examining Procedure §2131 (August 2001) (citing *Verdegaal Bros. v. Union Oil Col. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987)). As argued in the following remarks, Rock et al. does not disclose each and every element of any claim pending in the present application, and as such, Applicant respectfully contends that the instant rejections based thereon are improper and should be reversed on appeal. Prior to addressing the merits of these rejections, it is helpful to briefly describe the teachings of Rock et al.

Rock et al. is generally directed to an improvement for a pointer-controlled user interface for use with a medical device imaging system. Col. 1, lines 22-25. The user interface presents medical images to a user through a display screen and includes a toolbar having a plurality of control regions. FIG. 2 and Col. 2, lines 52-56. Each control region represents a function that may be performed in conjunction with displayed medical image. Col. 2, lines 34-36. The improvement taught by Rock et al. relates to controlling the appearance of the toolbar, as well as the control regions displayed therein, based on pointer positioning derived from user input. FIG. 2 and Col. 2, lines 56-62.

More specifically, one described implementation of the improvement taught by Rock et al. involves changing appearance of the toolbar based on positioning of the pointer by the user relative to the toolbar. See FIG. 3 and Col. 3, lines 3-13. If the user positions the pointer over any control region in the toolbar, the toolbar is displayed in a manner that is “clearly and easily” discernable by the user. FIG. 2 and Col. 3, lines 14-18. On the other hand, if the user positions the pointer away from the toolbar, the appearance of the toolbar changes to a “less distracting” form. FIG. 4 and Col. 3, lines 21-24. Another described implementation is concerned with changing appearance of the individual control regions using the aforementioned positioning queries rather than the toolbar as a whole. See FIGS. 8-9 and Col. 4, lines 31-65. Regardless of implementation, the improvement taught by Rock et al. may be summarized as a process for focusing (e.g., applying a clearly and easily discernable appearance) or non-focusing (e.g., applying a less distracting appearance) a region of a user interface for a medical imaging system.

B. REJECTIONS OF CLAIMS 1-6

Claim 1 recites the performance of two separate testing operations relative to two separate display states for a user interface element. In a first test, a control state of the user interface element is determined to be either active or disabled. If the control state is the active state, then claim 1 further recites performance of a second test that involves detecting whether the user interface element is in a focus state. In contrast, Rock et al. only teaches testing for a single display state based on the positioning of a pointer relative to the control regions. The test taught in Rock is based on a single, binary input indicating whether the pointer is either (1) over or (2) away from a control region. See Col. 3, lines 13-35. Rock et al. fails to teach or otherwise suggest a control state for the control regions, and thus necessarily lacks teaching the testing of whether a control region is in such a control state. As such, Rock et al. contains no enabling disclosure whatsoever as to testing whether a control region is active or disabled.

In both the first, non-final Office Action (page 3) and the final Office Action (page 4), the Examiner incorrectly cites Col. 3, lines 4-18 as teaching both tests recited in independent claim 1. Nowhere in this cited passage does Rock et al. teach determining whether a control region is in an active or disabled control state. Indeed, the control regions are simply taught by Rock et al. in this cited passage as being displayed either in an “easily” visible or “less distracting” fashion based solely on pointer position and completely irrespective of a control state of any kind. Col. 3, lines 4-18 of Rock et al. are focused on this one and only determination, and therefore fail altogether to meet the explicit recitations of independent claim 1 regarding a control state.

In the final Office Action (page 8), the Examiner maintains the position that Rock et al. teaches both a control state and a focus state by citing FIG. 5 and reference numerals 520 and 550. Specifically, the Examiner points to reference numeral 520 as teaching a focus state and reference numeral 550 as teaching a control state. Applicant respectfully notes that the Examiner is reading FIG. 5 out of context. Reference numeral 520 refers to an operation that involves determining pointer position relative to the control regions in the toolbar, and in response to this determination, reference numerals 530, 540, 550 and 560 are operative to set the focus state of the control regions. That is, reference numeral 520 teaches a test or condition, the result of which is used by reference numerals 530, 540, 550 and 560 to set the focus state of the control regions, as described in greater detail in the following paragraph.

Following the flow of operations from reference numeral 520, if the pointer is positioned over a control region, the flow passes to reference numeral 530, which determines whether the control regions are in a dimmed state, and if not, the control regions are maintained at the undimmed state and the process waits for the next pointer movement. Otherwise, the flow passes to the reference numeral 540 and the control regions are changed to the undimmed state. As such, if the result of the test in reference numeral 520 is “yes,” then reference numerals 530 and 540 are performed to accomplish the result of setting the control regions to the undimmed state. On the other hand, if the pointer is not positioned over a control region, the flow passes from reference numeral 520 to the reference numeral 550, which processes the opposite inquiry from reference numeral 530 (i.e., it tests whether the control regions are in the undimmed state). If so, the control regions are changed to the dimmed state. Otherwise, the control regions are maintained in the dimmed state and the process waits for the next pointer movement. As such, if the result of the test in reference numeral 520 is “no,” then reference numerals 550 and 560 are performed to accomplish the result of setting the control regions to the dimmed state.

From the foregoing, it should be apparent that FIG. 5 only pertains to determining whether the control regions are shown either (1) focused (i.e., undimmed) or, alternatively, (2) unfocused (i.e., dimmed). FIG. 5 lacks altogether teaching a control state for the control regions. That is, there is absolutely no teaching of an additional display state by which one or more of the control regions may be either active or disabled, as explicitly recited in claim 1. Plainly stated, Rock et al. teaches a focus state and nothing more. Because of this deficiency, FIG. 5 of Rock et al. further does not teach nor otherwise suggest, or provide a motivation for, testing to detect if a control region is active or disabled.

In addition, claim 1 also recites “building a merged state indicating that a user interface element is in the active state and in the focus state” upon satisfaction of both determinations noted above as well as “rendering display of the user interface element in the active state and with a focus state indicator based on the merged state.” (emphasis added). By virtue of failing to teach a control state determination for the control regions, see supra, Rock et al. is silent as an active state, and therefore necessarily cannot teach a merged state incorporating both such an active state and a focus state. Claim 1 is therefore further distinguished from Rock et al. based on these recited “building” and “rendering” acts.

For each of the reasons noted above, claim 1 is believed allowable over Rock et al. Claims 2-6 each depend from claim 1 and thus incorporate at least those features of claim 1 described above as being deficient from the teachings of Rock et al. As such, claims 2-6 are also believed allowable over Rock et al. for at least the above-stated reasons. Applicant therefore respectfully requests reconsideration of the final rejections to claims 1-6 by the Examiner, and if such reconsideration is not granted, then alternatively, reversal of these rejections by the Board of Appeals.

C. REJECTIONS OF CLAIMS 7-20

With similar respect to claim 1, independent claims 7, 11 and 17 each recite building a combined, or merged, state for a control element based on both a “control state” (e.g., claim 7), or “operative state” (e.g., claims 11 and 17), and a focus state. And further, each of these claims also recite rendering for display or otherwise drawing the control element in the combined, or merged, state. Likewise, claim 20 recites a user interface which displays a control element based on a combined state having both an operative state and a focus state. As noted above with respect to claim 1, Rock et al. fails to enable a control state for use in displaying the control regions of the toolbar, and consequently, is devoid of any teaching, motivation or suggestion to create and thereafter display a control element in a merged, or combined, state using both a focus state and a control state.

Additionally, claims 11, 17 and 20 each recite application of a theme to the operative state for a control element. Generally described, a theme defines the overall visual appearance (e.g., font, color, etc.) of various graphical components, and thus, represents another display characteristic applicable to user interface elements. For example, a control state may take on certain visual properties based on one or more themes. Rock et al. does not teach a control, or operative state, see supra, and thus necessarily cannot teach application of a theme thereto. For at least these reasons, claims 11, 17 and 20 are believed to further distinguish the present invention over Rock et al.

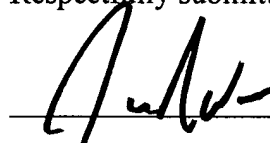
Claims 8-10, 12-16 and 18-19 depend from claims 7, 11 and 17, respectively, and thus incorporate at least those features of claims 7, 11 and 17 described above as being deficient from the teachings of Rock et al. As such, claims 8-10, 12-16 and 18-19 are also believed allowable over Rock et al. for at least the above-stated reasons. Applicant therefore respectfully requests reconsideration of the final rejections to claims 7-20 by the Examiner, and if such reconsideration is not granted, then alternatively, reversal of these rejections by the Board of Appeals.

VIII. SUMMARY

In view of the foregoing remarks, Applicants earnestly request that the Examiner's rejection be reversed, and that all of the pending claims be allowed. As noted above, a check in the amount of \$500 is enclosed herewith to cover the fee required for submission of this Appeal Brief. Additionally, a check in the amount of \$120.00 is enclosed as an extension fee pursuant to 37 C.F.R. 1.136(a) to extend the period for filing this Brief from December 1, 2004 to January 3, 2005 (note: January 1, 2005 fell on a Saturday). No other fees are believed due. However, if that is not the case, the Commissioner is hereby authorized to charge any deficiencies (or alternatively, credit any overpayment) to deposit account number 13-2725.

Dated: January 3, 2005

Respectfully submitted,



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IX. CLAIMS APPENDIX

The text of the claims involved in the appeal are:

1. (Previously Presented) A method for displaying a focus state of a user interface element in a graphical user interface of a computing system, the method comprising:
testing whether a control state of the user interface element is a disabled state or an active state;
if the control state is the active state, detecting if the user interface element is in a focus state;
if the user interface element is in the active state and in the focus state, building a merged state indicating the user interface element is in the active state and in the focus state; and
rendering based on the merged state a display of the user interface element in the active state with a focus state indicator.
2. (Previously Presented) The method of claim 1 wherein the control state is a normal state and the act of building builds a merged normal-focus state as a single state.
3. (Original) The method of claim 2 wherein the act of rendering comprises:
receiving theme data for the normal state and theme data for the focus state;
drawing the user interface element on a display based on the theme data for the normal state and drawing the focus indicator on the user interface element based on the theme data for the focus state.
4. (Previously Presented) The method of claim 1 wherein the control state is a hot state and the act of building builds a merged hot-focus state as a single state.
5. (Original) The method of claim 4 wherein the act of rendering comprises:
receiving theme data for the hot state and theme data for the focus state;
drawing the user interface element on a display based on the theme data for the hot state and drawing the focus indicator on the user interface element based on the theme data for the focus state.

6. (Previously Presented) The method of claim 1 wherein the control state may be disabled, normal, hot or selected depending upon availability of the user interface element and input from a user wherein the control states having a possible focus state are normal and hot.

7. (Previously Presented) A computer program product readable by a computing system and encoding a computer program of instructions for executing a computer process for displaying a themed focus state of a control element in a graphical user interface of a computing system, said computer process comprising:

receiving a control state for the control element;

detecting if the control element is in a focus state;

if the control element is in the focus state, building a combined state indicating the control state and focus state of the control element; and

rendering the control element based on the combined state so that the control element is displayed with a themed focus state.

8. (Previously Presented) The computer program product of claim 7 wherein the computer process further comprises:

detecting whether the control state of the control element is disabled or active; and

if the control element is disabled, rendering the control element based on a theme for the control state.

9. (Previously Presented) The computer program product of claim 7 wherein the control state has a control state theme and the focus state has a focus state theme and the act of rendering comprises:

retrieving the control state theme and the focus state theme;

drawing the control element based on the control state theme and the focus state theme so that the control element in the focus state is displayed with the focus state theme.

10. (Previously Presented) The computer program product of claim 7 wherein only control states, where the control element is available and has not been selected, may also have a focus state.

11. (Previously Presented) A method for changing visual styles of a focus state indicator in a control element in a graphical operating system running on a computing system, said method comprising:

- receiving an operative state of the control element;
- detecting whether or not the control element is in a focus state;
- drawing the control element using an operative state theme when the control element is not in the focus state;
- creating a combined state for the control element when the control element is in the focus state, the combined state being a single merged state representing the operative state and the focus state; and
- drawing the control element in the combined state using the operative state theme and a focus state theme, whereby the visual style of the focus state indicator in the control element is changed by the focus state theme.

12. (Previously Presented) The method of claim 11 wherein the act of creating the combined state comprises:

- receiving the focus state for the control element;
- testing whether the operative state of the control element is normal; and
- if the operative state is normal, setting the combined state to a hot-focus state.

13. (Previously Presented) The method of claim 12 wherein the act of drawing the control element in a combined state comprises:

- retrieving normal state theme properties;
- retrieving focus state theme properties;
- rendering the control element with both the normal state theme properties and the focus state theme properties.

14. (Previously Presented) The method of claim 11 wherein the act of creating the combined state comprises:

- receiving the focus state for the control element;
- testing whether the operative state of the control element is hot; and
- if the operative state is hot, setting the combined state to a hot-focus state.

15. (Previously Presented) The method of claim 14 wherein the act of drawing the control element in the combined state comprises:

retrieving hot state theme properties;

retrieving focus state theme properties;

rendering the control element with both the hot state theme properties and the focus state theme properties.

16. (Previously Presented) The method of claim 11 wherein the act of creating the combined state comprises:

receiving the focus state for the control element;

testing whether the operative state of the control element is disabled; and

if the operative state is disabled, performing an error handling process.

17. (Previously Presented): A system for themeing a focus state indicator separate from an operative theme for a control element in a graphical operating system said system comprising:

an operative state module determining an operative state of the control element;

a focus state detector testing whether the control element is in a focus state and indicating a focus condition or a non-focus condition;

a build combined state module in response to the focus state indicating the focus condition merging the operative state and the focus state into a combined state indicating the control element may be rendered based on both an operative state theme and a focus state theme.

18. (Original) The system of claim 17 further comprising:

a draw combined state module drawing the control element with operative state theme properties and a focus state indication with focus state theme properties.

19. (Original) The system of claim 17 further comprising:

a draw operative state module in response to the non-focus condition drawing the control element with operative state theme properties.

20. (Previously Presented) A user interface with selectable focus indicators for control elements in a graphical user interface for a computing system, wherein the user interface:

receives an operative state theme for rendering a display of an operative state for a control element;

receives a focus state theme for rendering the focus state of the control element; and

displays the control element in a combined operative-focus state, the display of the control element in the combined state being based on the operative state theme and the focus state theme

whereby control elements in the user interface have selectable focus indicators.

X. EVIDENCE APPENDIX

None

XI. RELATED PROCEEDINGS APPENDIX

None